



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/628,817	07/28/2003	Hideki Ozawa	1259-03	5866

35811 7590 11/17/2004

IP DEPARTMENT OF PIPER RUDNICK LLP
ONE LIBERTY PLACE, SUITE 4900
1650 MARKET ST
PHILADELPHIA, PA 19103

EXAMINER

AHMED, SHEEBA

ART UNIT PAPER NUMBER

1773

DATE MAILED: 11/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/628,817

Applicant(s)

OZAWA ET AL.

Examiner

Sheeba Ahmed

Art Unit

1773

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/16/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1, 3-6, and 8-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Schlueter, Jr. et al. (US 6,201,945)

Schlueter, Jr. et al. disclose a polyimide film containing electrically conductive doped metal oxide filler dispersed therein and wherein the polyimide film has a surface resistivity of from 10^4 to 10^{12} ohm/sq (Column 4, lines 3-7), a volume resistivity of from 10^4 to 10^{11} ohm.cm (Column 8, lines 50-60) and has a thickness of from about 25 to about 150 microns thick (Column 8, lines 41-45). The film may have an outer layer. The film is prepared by using a reaction product of a diamine and a dianhydride dissolved in a solvent, adding and dispersing an appropriate amount of filler, casting the mixture of a surface, removing the solvent by evaporation and eating to convert the polyamic acid to polyimide (Column 9, lines 15-30). Preferred doped metal oxides include aluminum doped zinc oxide. Additional conductive filler may be present in the polyimide layer and examples include indium tin oxide. The desired resistivity can be obtained by varying the concentration of the conductive fillers (Column 12, lines 25-60). With regards to the limitation that the film is antistatic, the Examiner takes the position that such a property limitation is inherently met by the polyimide film taught by Schlueter, Jr. et al. given that

the chemical composition of the film taught by Schlueter, Jr. et al. and that of the claimed invention is identical. All limitations of claims 1, 3, -6, 8-12 are either inherent or disclosed in the above reference.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 2 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schlueter, Jr. et al. (US 6,201,945)

Schlueter, Jr. et al. disclose a polyimide film containing electrically conductive doped metal oxide filler dispersed therein and wherein the polyimide film has a surface resistivity of from 10^4 to 10^{12} ohm/sq (Column 4, lines 3-7), a volume resistivity of from 10^4 to 10^{11} ohm.cm (Column 8, lines 50-60) and has a thickness of from about 25 to about 150 microns thick (Column 8, lines 41-45). The film may have an outer layer. The film is prepared by using a reaction product of a diamine and a dianhydride dissolved in a solvent, adding and dispersing an appropriate amount of filler, casting the mixture of a surface, removing the solvent by evaporation and eating to convert the polyamic acid to polyimide (Column 9, lines 15-30). Preferred doped metal oxides include aluminum doped zinc oxide. Additional conductive filler may be present in the polyimide layer and

examples include indium tin oxide. The desired resistivity can be obtained by varying the concentration of the conductive fillers (Column 12, lines 25-60).

Schlueter, Jr. et al. do not teach that the metal oxide and indium tin oxide particle are present in a weight ratio of 0.01 to 0.1 or that the indium tin oxide particle have a particle size of no greater than 0.1 microns.

However, it would have been obvious to one having ordinary skill in the art to optimize the size and amount of the metal oxide and indium tin oxide particles given that Schlueter, Jr. et al. specifically teach that the desired resistivity can be obtained by varying the concentration of the conductive fillers.


Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheeba Ahmed whose telephone number is (571)272-1504. The examiner can normally be reached on Mondays and Thursdays from 9:30am to 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Jones can be reached on (571)272-1535. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1773

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Sheeba Ahmed
Art Unit 1773
November 12, 2004